

Section E Emissions Attachments

Attachment E.1. Emissions to Atmosphere

Not applicable. Site is closed. Tables E.1.(i) to Table E.1(iv) have not been completed.

Attachment E.1.A Details of all point emissions to atmosphere

Not applicable. There will be no point source emissions to air during the Aftercare Phase. Site is closed.

Attachment E.1.B Fugitive and Potential emissions

Not applicable. There will be no fugitive and potential emissions to air during the Aftercare Phase. Site is closed.

Attachment E.2. Emissions to Surface Water

Please refer to Section D4 of this review for description of the leachate treatment process (Willow Plantation and ICW) and Section B.3 with regards to the assimilative capacity of the River Finn.

Table E.2(i) E.2(ii) have been completed

The primary treatment option for the extracted leachate is to the willow plantation. Leachate is pumped to the willow plantation before discharge to surface water. If treated leachate levels are unacceptably elevated, the leachate is treated further by circulating via the willow plantation and/or constructed wetlands before discharging to surface water.

The two discharge outlets from the Willow plantation (SW8 and SW10) are being monitored by ammonia analysers and flowmeters and recorded on the SCADA system. When any sample reaches set limit (3 mg/l ammonia), a motorised valve will shut and divert flow via gravity into the nearest pumping station chamber (No1 or 2) for recirculation. This scenario shall continue until sample has reached acceptable limits. All values are recorded, alarmed and trended on the SCADA system.

SW9 and SW11 are the two discharge outlets from the ICW. The proposed emission limit values (ELVs) are provided in Table E below.

Table E Proposed Emission Limit Values

Parameter	Limit
pH	6-9
BOD	20 mg/l
Suspended Solids	30 mg/l
Orthophosphate	2 mg/l
Total Ammonia (as N)	3 mg/l

Assimilative capacity was calculated to measure the receiving water body's ability to assimilate the Pollutants based on the proposed emission limit values. The assessment when taking the Q95 low flow statistics into consideration is conservative in nature given that during low flow conditions it is unlikely that there will be a discharge from the leachate management system. Therefore an estimated maximum discharge flow of 136m³/sec has been calculated (using the rainfall and evapotranspiration data available for Malin Head and has been assessed using the Q30 mean flows in the Finn as a more appropriate flow statistic. When this flow is considered the mass balance assessment indicates that there would be an imperceptible increase in concentrations that would not be detectable, i.e. less than the limit of detection for many laboratories.

Attachment E.3 Emissions to Sewer

There will be no emissions to sewer. Tables E.3.(i) and E.3.(ii) have not been completed.

Attachment E.4. Emissions to Ground

The site is closed. The site is unlined and has been capped. A hydrogeological risk assessment was undertaken in 2015 and submitted to the EPA. The report found that groundwater quality data does not indicate any upwards trends over time. Both groundwater and surface water contaminant fluxes from the landfill have the potential to impact on the quality of the River Finn. However, available data suggests that groundwater contaminant fluxes to the river are having a negligible effect on the river downstream of the landfill. Groundwater quality is expected to improve after the ICW and willow treatment has been commissioned.

Table E.4.(i) has not been completed.

Attachment E.5. Noise Emissions

Not applicable. Site is closed. Tables E.5.(i) has not been completed.

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